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U.S. DEPARTMENT OF AGRICULTURE
NATIONAL AGRICULTURAL EXPERIMENT STATION
MAR 20 1968
COMMITTEE RECORDS

WATER SUPPLY OUTLOOK FOR ARIZONA

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE,
SALT RIVER VALLEY WATER USERS ASSOCIATION
and
ARIZONA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with the Federal, State and private organizations listed on the last page of this report.

AS OF
FEB. 15, 1968

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season as they affect runoff will add to be an effective average. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

D. A. WILLIAMS, Administrator

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 507, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85205
Colorado (N. Mex.)	12417 Federal Building, Denver, Colorado 80202
Idaho	P. O. Box 38, Boise, Idaho 83707
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Building, Salt Lake City, Utah 84111
Washington	360 Federal Office Building, Spokane, Washington 99201
Wyoming	P. O. Box 340, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR ARIZONA

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

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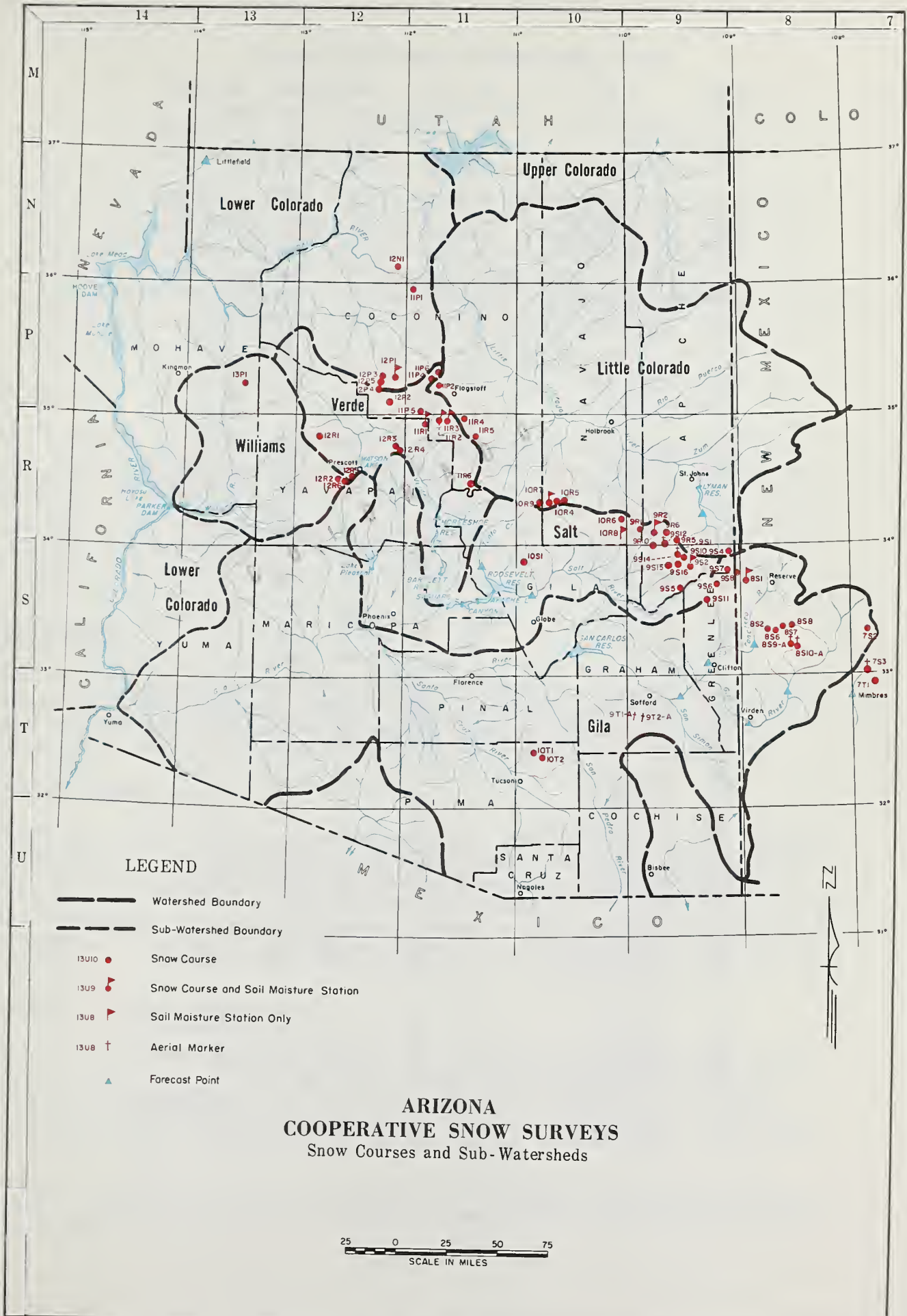
VICTOR I. CORBELL
PRESIDENT
SALT RIVER VALLEY WATER
USERS ASSOCIATION

|||||
Report prepared by

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SOIL CONSERVATION SERVICE
ROOM 6029 FEDERAL BUILDING
PHOENIX, ARIZONA 85025





INDEX to SNOW COURSES and SOIL MOISTURE STATIONS

<u>Number</u>	<u>Name</u>	<u>Sec</u>	<u>Twp</u>	<u>Rge</u>	<u>Elevation</u>	<u>River Basin</u>
11R6	Baker Butte (p)	4	12N	9E	7300	Verde
9S1	Baldy (p)	28	7N	27E	9125	Little Colorado
9S15	Baldy #2	12	6N	26E	10000	Little Colorado
9S16	Baldy #3	13	6N	26E	11000	Little Colorado
10T1	Bear Wallow	6	12S	16E	8100	Gila
12P5	Bill Williams Intermediate	17	21N	2E	8550	Lower Colorado
12P4	Bill Williams Summit	17	21N	2E	8950	Lower Colorado
9S6	Beaver Head	13	4N	30E	8000	San Francisco
9S10-*	Black River Divide	10	6N	27E	9400	Salt
12N1	Bright Angel	34	33N	3E	8400	Lower Colorado
12R1	Camp Wood	3	16N	6W	5700	Verde
10R7-M	Canyon Creek #2	18	11N	15E	7500	Little Colorado
10R9	Canyon Point (p)	28	11N	14E	7600	Salt
11R2-M	Casner Park	19	18N	8E	6930	Verde
12P1-M	Chalender	27	22N	3E	7100	Verde
12R6	Copper Basin Divide (p)	23	13N	3W	6720	Verde
10R8-*	Corduroy Creek	4	8N	21E	6000	Salt
9S7	Coronado Trail	26	5N	30E	8000	San Francisco
9T2-A	Crazy Horse	34	8S	24E	10200	Gila
7T1	Emory Pass #1	16	16S	9W**	7800	Mimbres
7T2	Emory Pass #2	16	16S	9W**	7800	Mimbres
10R6	Forest Dale	2	9N	21E	6430	Salt
11P2	Fort Valley (p)	22	22N	6E	7350	Little Colorado
9R5	Ft. Apache	18	7N	27E	9160	Little Colorado
8S1-M	Frisco Divide	31	6S	20W**	8000	San Francisco
12R4	Gaddess Canyon	11	15N	2E	7600	Verde
10R5	Gentry	36	11N	15E	7650	Salt
11P1	Grand Canyon	21	30N	4E	7500	Lower Colorado
9S11	Hannagan Meadows (p)	19	3N	29E	9090	Salt
11R5	Happy Jack	30	17N	9E	7630	Verde
9R10	Hawley Lake	13	7N	24E	8300	Salt
10R4	Heber (p)	28	11N	15E	7600	Little Colorado
9T1-A	High Peak	34	8S	24E	10500	Gila
8S9-A	Hummingbird	19	11S	17W**	10550	San Francisco
8S6	Ice King	6	11S	18W**	8020	San Francisco
7S2	Inman	6	11S	10W**	7800	Gila
12R2	Iron Springs	22	14N	3W	6200	Bill Williams
9S2	Maverick Fork (p)	13	6N	27E	9150	Salt
7S3-A	McKnight Cabin	10	15S	10W**	9300	Mimbres
9R2-M	McNary	23	8N	23E	7200	Salt
9R1	Milk Ranch	33	8N	23E	7000	Salt
12R3	Mingus Mountain	3	15N	2E	7100	Verde
8S2	Mogollon	2	11S	19W**	7000	San Francisco
11R4	Mormon Lake	13	18N	8E	7350	Little Colorado
11R3-M	Mormon Mountain (p)	14	18N	8E	7500	Verde
9S12-A	Mt. Ord	4	6N	26E	11000	Salt
11R1-M	Munds Park	15	18N	7E	6500	Verde
11P5-M	Newman Park	25	19N	6E	6750	Verde
9S4	Nutriso	23	6N	30E	8500	San Francisco
9S5	Pacheta	27	4-1/2N	27E	7800	Salt
8S7	Redstone Trail	5	11S	18W**	8600	San Francisco
10T2	Rose Canyon	15	12S	16E	7300	Gila
8S8	Silver Creek Divide	4	11S	18W**	9000	San Francisco
9S14-A	Smith Cienega	10	6N	26E	9850	Salt
11P4	Snow Bowl #1 (p)	36	23N	6E	10260	Verde
11P6	Snow Bowl #2	31	23N	7E	11000	Verde
9S8	State Line	6	6S	21W**	8000	San Francisco
12R5	White Spar	19	13N	2W	6000	Verde
12P2	White Horse Lake Jct	2	20N	2E	7150	Verde
8S10-A	Whitewater	19	11S	17W**	10750	Gila
12P3	Williams Ski Run	9	21N	2E	7720	Lower Colorado
13P1	Willow Ranch	16	21N	11W	5000	Bill Williams
9R6	Wilson Lake (p)	4	7N	26E	9000	Salt
10S1	Workman Creek	33	6N	14E	6900	Salt

M SOIL MOISTURE STA.

(p) STORAGE GAGE

A AERIAL SNOW DEPTH MARKER

* SOIL MOISTURE STA. ONLY

** NM PRINCIPAL MERIDIAN

ARIZONA WATER SUPPLY OUTLOOK

FEBRUARY 15, 1968

* * * * *

* The Water Supply Outlook for Arizona is excellent this year. *

* Reservoir storage is rapidly increasing and streamflow forecasts *

* are over twice normal. The present snow pack is 2 to 4 times *

* average for this date. Water supplies will be abundant and many *

* projects will be able to carry over storage for next year. *

* * * * *

SNOW COVER

Snow is melting at the lower elevations, reducing the snow pack considerably. At the higher elevations, however, there has been little melting and many snow courses have slightly more than two weeks ago. The present snow pack is about 2-1/2 times normal on the Salt and Verde Watersheds, and almost 4 times normal on the Gila. The storm of February 11 to 14 was not heavy in most places, but it did add 10 to 12" of snow on top of the "Rim" and in the Mt. Baldy area. The deepest snow measured on this survey is in the Gila Wilderness, where there is now 8'.

PRECIPITATION

Except for Prescott, all the selected Weather Bureau stations had below average precipitation during January. Since October 1, however, the departures from average are all positive, generally running about twice average. The mid-February storm resulted in precipitation amounts ranging from .75" to 2".

RESERVOIR STORAGE

Spillway gates were opened last week on the Salt River System and 3,500 cfs was released down the River from Granite Reef Diversion. According to Salt River Project officials, releases will continue as necessary to maintain about a 100,000 acre foot deficit in the 4 Salt River Reservoirs. As the possible flood hazard diminishes, this will be reduced. Water is also being released from Lake Pleasant. Storage in San Carlos Reservoir is 6 times normal, but only 37% of capacity.

STREAMFLOW AND WATER SUPPLY

Runoff on all streams increased sharply as a result of last week's warm storm. During the first half of February, the combined flow of the Salt, Verde and Tonto produced 154,000 A.F. and the Gila at Safford, 78,000 A.F. February 1 through May streamflow forecasts indicate 970,000 A.F. is expected on the Salt River Project streams and 263,000 on the Gila River.

Free water is being delivered on the Salt River Project to encourage early use of water. Farmers on all projects should irrigate early, thereby storing water in the soil for later use.



STREAMFLOW FORECASTS - FEBRUARY 15, 1968

The following summarized runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts.

SUB-WATERSHED, STREAM and STATION	SEASONAL STREAMFLOW IN THOUSANDS OF ACRE FEET					
	FORECAST PERIOD: JANUARY - MAY, INCLUSIVE					
	Forecast	Percent	Measured Runoff			
	Runoff	15-Year	1967	1966	1965	1948-62
	1968	Average				Average
<u>SALT RIVER DRAINAGE</u>						
Salt nr. Roosevelt	580	224	59.4	444.7	474.3	259.1
Tonto Creek nr. Roosevelt	75	226	5.5	21.8	92.7	33.2
Verde River above Horseshoe	315	208	54.3	154.2	417.8	151.1
<u>GILA RIVER DRAINAGE</u>						
Gila River nr. Gila	102	233	13.6	102.5	40.5	43.7
Gila River nr. Solomon	263	268	21.2	264.4	91.4	98.0
Gila River nr. Solomon (month of March)	105	271	6.2	148.7	30.2	38.7
Gila River nr. Virden	132	259	13.4	128.6	45.3	51.0
Frisco River at Clifton	135	272	11.5	126.1	48.9	49.6
Frisco River at Glenwood	60	287	4.0	61.3	20.4	20.9
<u>MIMBRES RIVER DRAINAGE</u>						
Mimbres River nr. Mimbres	6	187	0.9	8.5	1.0	3.2
<u>COLORADO RIVER DRAINAGE</u>						
Little Colorado River above Lyman Dam (FEB.-JUNE, Incl.)	22	237	1.3	22.2	19.8	9.3
Colorado River -- Lake Powell* Inflow (APRIL-JULY, Incl.)	7500.0	98	---	4600.0	11810.0	7692.0
<u>VIRGIN RIVER DRAINAGE</u>						
Virgin River nr. Littlefield (APRIL-JUNE, Incl.)	57	133	39.0	26.6	63.5	43.0
<u>GRANITE CREEK DRAINAGE</u>						
Granite Creek	6	---	---	---	---	---
Willow Creek	2	---	---	---	---	---

The Gila River at Head of Safford Valley is predicted to remain flowing above 100 cfs until July 20.

* Forecast issued by Soil Conservation Service, Salt Lake City, Utah.



STATUS OF ARIZONA RESERVOIR STORAGE - ABOUT FEBRUARY 15, 1968

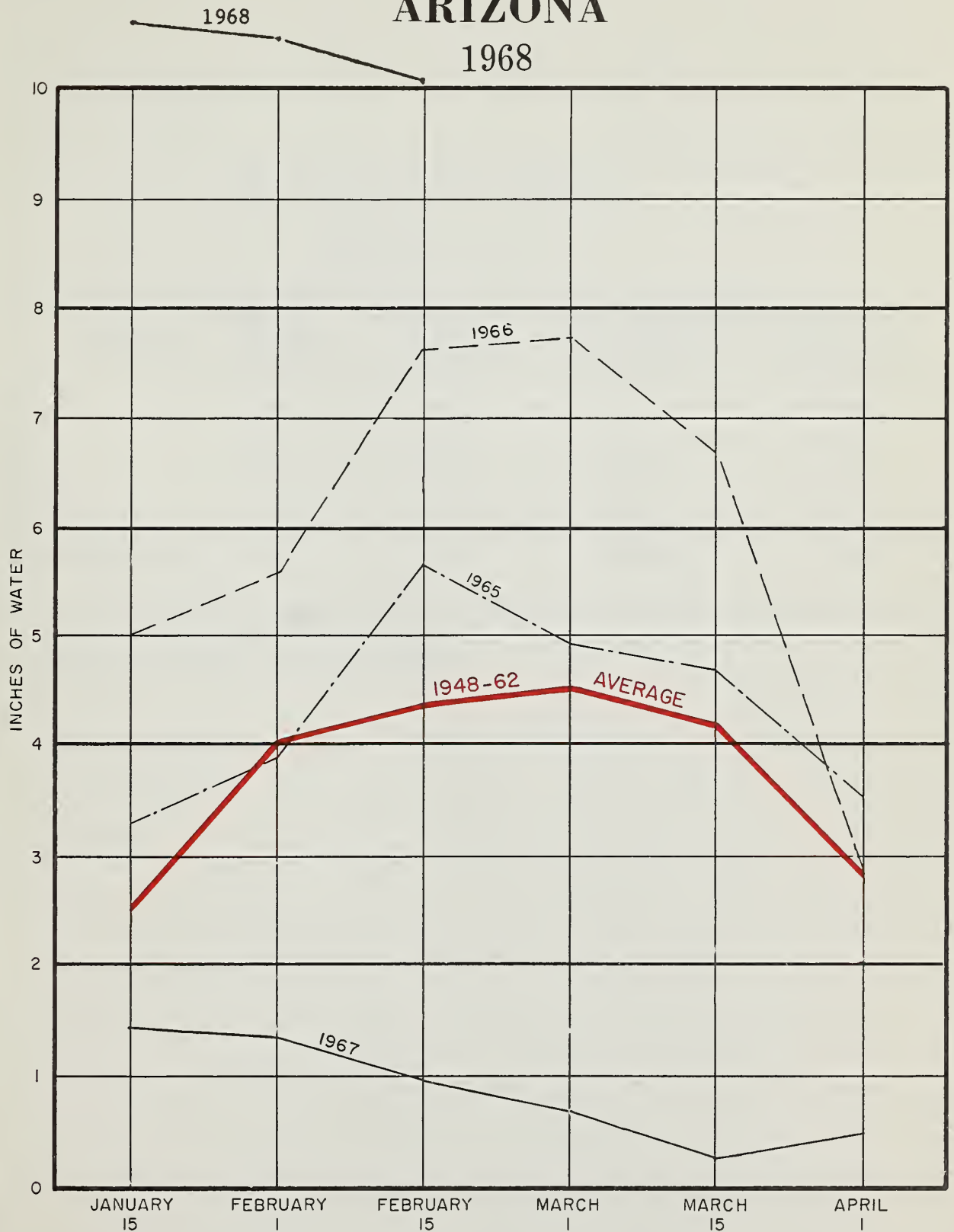
SUB- WATERSHED and/or STREAM	RESERVOIR	USABLE	USABLE STORAGE - 1000s ACRE FEET			15-Year
		CAPACITY 1000s ACRE FEET	1968	1967	1966	Average 1948-62
<u>GILA RIVER DRAINAGE</u>						
Agua Fria	Lake Pleasant	157.6	153.6	126.9	158.0	30.1
Granite	Watson Lake	4.7	4.7	3.2	4.5	---
Granite	Willow Creek	6.1	4.6	4.0	6.1	---
Gila	San Carlos	1,206.0	442.5	315.9	392.8	70.5
Verde	Bartlett	179.5	132.8	128.8	167.1	75.1
Verde	Horseshoe	142.8	47.4	53.2	108.7	19.1
Salt	Roosevelt	1,382.0	1,289.1	1,133.3	1,252.2	420.1
Salt	Apache	245.0	241.0	233.6	239.5	200.3
Salt	Canyon	58.0	54.9	46.6	55.2	46.7
Salt	Saguaro	70.0	61.2	60.4	50.1	49.8
<u>COLORADO RIVER DRAINAGE</u>						
Colorado	Lake Havasu	619.4	544.5	534.4	545.2	544.8
Colorado	Lake Mohave	1,810.0	1,708.4	1,626.0	1,705.0	1,546.0*
Colorado	Lake Mead	27,207.0	14,614.0	15,669.0	15,663.0	17,213.8
Colorado	Lake Powell	25,002.0	8,128.0	7,575.4	8,734.9	---
Little Colorado	Lyman	30.6	18.8	17.5	20.4	7.1
Little Colorado	Show Low Lake	5.1	1.1	0.7	5.1	1.4*

* Average is for less than 15 years of record in the 1948-62 period.

THE HISTORY OF THE
CITY OF BOSTON

Year	Event	Year	Event	Year	Event
1630	Founding of Boston	1634	First Town Meeting	1638	First Church of Christ
1631	First School	1635	First Court	1639	First Fire
1632	First Jail	1636	First Prison	1640	First Hospital
1633	First Jail	1637	First Prison	1641	First Hospital
1634	First Jail	1638	First Prison	1642	First Hospital
1635	First Jail	1639	First Prison	1643	First Hospital
1636	First Jail	1640	First Prison	1644	First Hospital
1637	First Jail	1641	First Prison	1645	First Hospital
1638	First Jail	1642	First Prison	1646	First Hospital
1639	First Jail	1643	First Prison	1647	First Hospital
1640	First Jail	1644	First Prison	1648	First Hospital
1641	First Jail	1645	First Prison	1649	First Hospital
1642	First Jail	1646	First Prison	1650	First Hospital
1643	First Jail	1647	First Prison	1651	First Hospital
1644	First Jail	1648	First Prison	1652	First Hospital
1645	First Jail	1649	First Prison	1653	First Hospital
1646	First Jail	1650	First Prison	1654	First Hospital
1647	First Jail	1651	First Prison	1655	First Hospital
1648	First Jail	1652	First Prison	1656	First Hospital
1649	First Jail	1653	First Prison	1657	First Hospital
1650	First Jail	1654	First Prison	1658	First Hospital
1651	First Jail	1655	First Prison	1659	First Hospital
1652	First Jail	1656	First Prison	1660	First Hospital
1653	First Jail	1657	First Prison	1661	First Hospital
1654	First Jail	1658	First Prison	1662	First Hospital
1655	First Jail	1659	First Prison	1663	First Hospital
1656	First Jail	1660	First Prison	1664	First Hospital
1657	First Jail	1661	First Prison	1665	First Hospital
1658	First Jail	1662	First Prison	1666	First Hospital
1659	First Jail	1663	First Prison	1667	First Hospital
1660	First Jail	1664	First Prison	1668	First Hospital
1661	First Jail	1665	First Prison	1669	First Hospital
1662	First Jail	1666	First Prison	1670	First Hospital
1663	First Jail	1667	First Prison	1671	First Hospital
1664	First Jail	1668	First Prison	1672	First Hospital
1665	First Jail	1669	First Prison	1673	First Hospital
1666	First Jail	1670	First Prison	1674	First Hospital
1667	First Jail	1671	First Prison	1675	First Hospital
1668	First Jail	1672	First Prison	1676	First Hospital
1669	First Jail	1673	First Prison	1677	First Hospital
1670	First Jail	1674	First Prison	1678	First Hospital
1671	First Jail	1675	First Prison	1679	First Hospital
1672	First Jail	1676	First Prison	1680	First Hospital
1673	First Jail	1677	First Prison	1681	First Hospital
1674	First Jail	1678	First Prison	1682	First Hospital
1675	First Jail	1679	First Prison	1683	First Hospital
1676	First Jail	1680	First Prison	1684	First Hospital
1677	First Jail	1681	First Prison	1685	First Hospital
1678	First Jail	1682	First Prison	1686	First Hospital
1679	First Jail	1683	First Prison	1687	First Hospital
1680	First Jail	1684	First Prison	1688	First Hospital
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1683	First Jail	1687	First Prison	1691	First Hospital
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1685	First Jail	1689	First Prison	1693	First Hospital
1686	First Jail	1690	First Prison	1694	First Hospital
1687	First Jail	1691	First Prison	1695	First Hospital
1688	First Jail	1692	First Prison	1696	First Hospital
1689	First Jail	1693	First Prison	1697	First Hospital
1690	First Jail	1694	First Prison	1698	First Hospital
1691	First Jail	1695	First Prison	1699	First Hospital
1692	First Jail	1696	First Prison	1700	First Hospital

RELATIVE SNOW WATER ACCUMULATION ARIZONA



This graph represents the average snow water content on eleven selected snow courses on Arizona Sub-Watersheds.



SNOW COVER ON ARIZONA WATERSHEDS

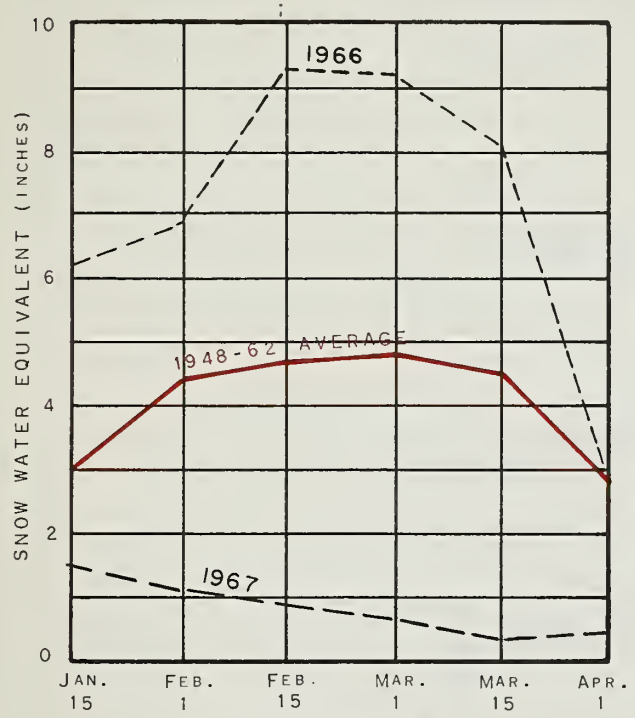
FEBRUARY 15, 1968

Watershed	No. of Courses Average	Water Content of Snow (Inches)	This Year's Water Content of Snow Expressed as Percent of: Last Year	Water Content of Percent of: Average *
Gila	7	8.1	00	386%
Salt	10	12.0	1200%	250%
Verde	7	9.7	1940%	243%
Little Colorado	4	10.1	896%	198%

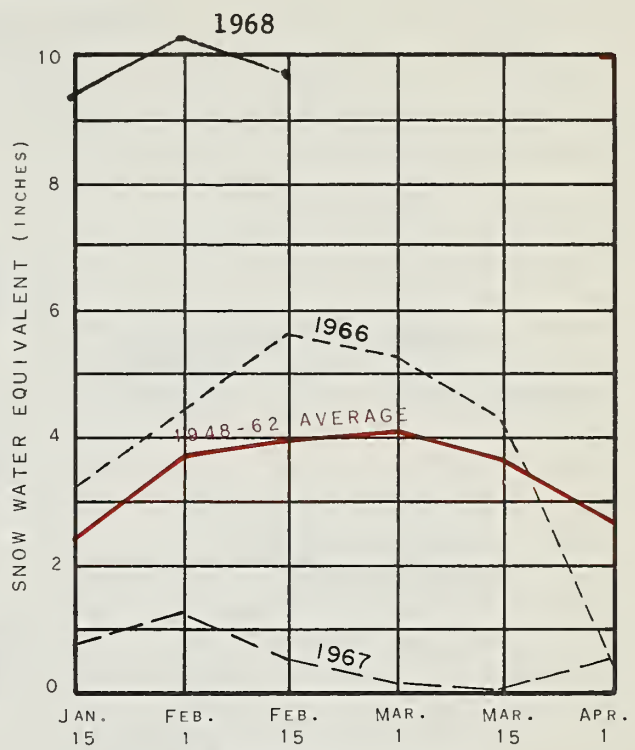
* Actual or Estimated 1948-62 Average.

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1968

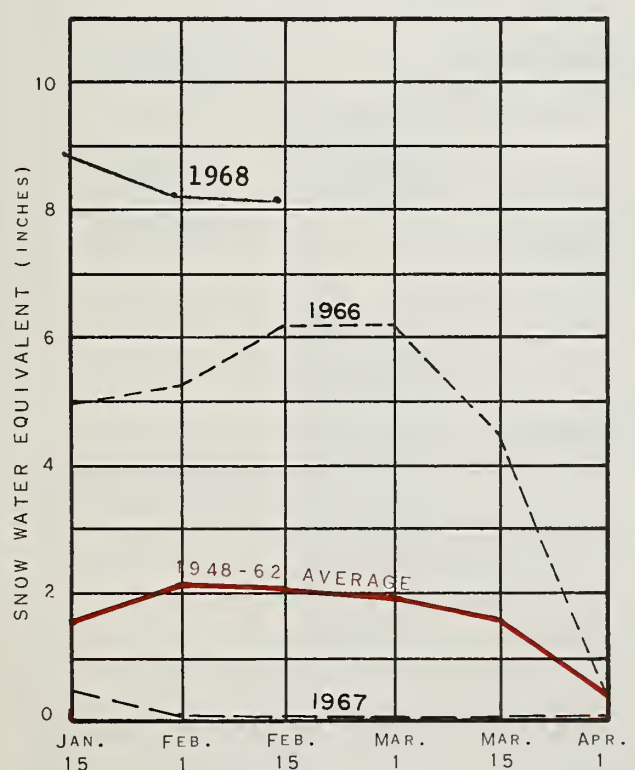
1968 ARIZONA SNOW COVER BY WATERSHEDS



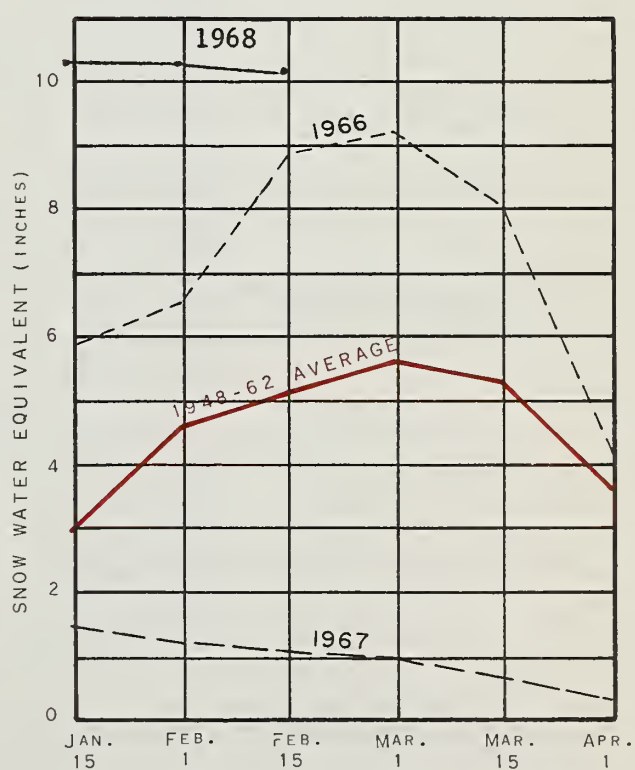
SALT RIVER



VERDE RIVER



GILA RIVER

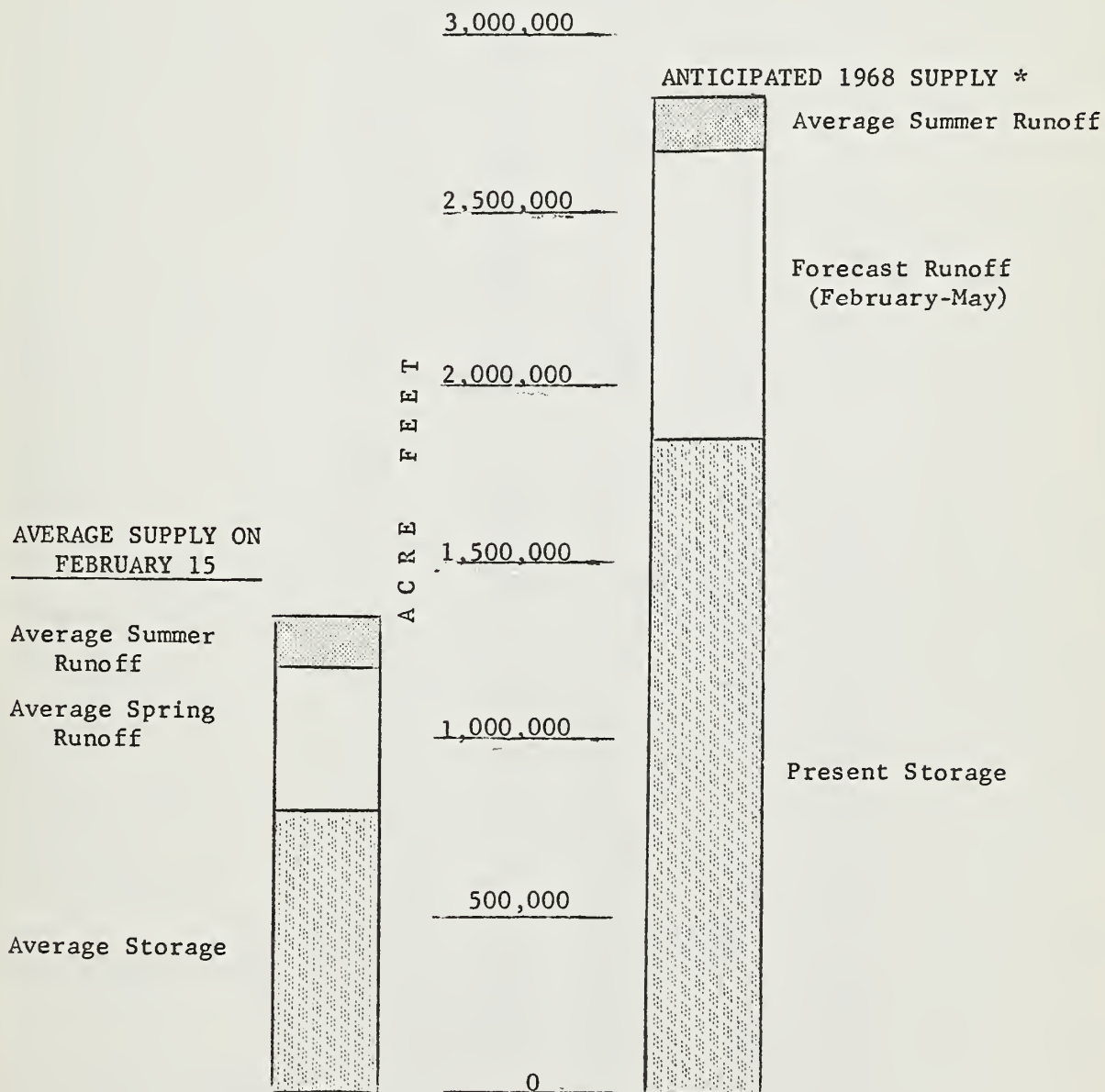


LITTLE COLORADO RIVER

BASED ON SELECTED SNOW SURVEY COURSES



WATER SUPPLY INVENTORY
SALT RIVER VALLEY SYSTEM
FEBRUARY 15, 1968



* Based on Present Storage + Forecast Spring Runoff + Average Summer Runoff

SNOW ABOUT FEBRUARY 15, 1968

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^a

GILA RIVER

Bear Wallow	10T1	8100	2/15	40	15.9	0.0	3.2
Beaver Head	9S6	8000	2/13	34	11.9	0.0	3.0
Coronado Trail	9S7	8000	2/15	29	9.9	0.0	2.7
Crazy Horse (A)	9T2-A	10200	NO SURVEY			2.0	---
Emory Pass #1 *	7T1	7800	2/14	5	0.9	0.5	---
Emory Pass #2 *	7T2	7800	2/14	16	5.0	0.3	---
Frisco Divide	8S1-M	8000	2/14	29	9.0	0.1	2.1
Hannagan Meadows *	9S11	9090	2/13	52	16.0	2.1	---
High Peak (A)	9T1-A	10500	NO SURVEY			2.5	---
Hummingbird (A)	8S9-A	10550	2/16	72	20.8	1.2	---
Ice King	8S6	8020	2/15	36	11.5	1.9	---
Inman	7S2	7800	2/13	4	2.7	0.0	0.5
McKnight Cabin *	7S3-A	9300	2/16	35	11.2	0.3	---
Mogollon	8S2	7000	2/15	10	5.8	0.0	2.0**
Nutrioso	9S4	8500	2/15	22	7.8	0.0	2.0
Redstone Trail	8S7	8600	2/15	45	14.6	2.2	---
Rose Canyon	10T2	7300	2/15	25	11.0	0.0	1.9
Silver Creek Divide	8S8	9000	2/15	57	18.7	3.7	---
State Line	9S8	8000	2/14	35	9.4	0.0	2.3
Whitewater (A)	8S10-A	10750	2/16	96	23.0	5.0	---

SALT RIVER

Baldy *	9S1	9125	2/14	41	11.8	1.7	7.7**
Beaver Head	9S6	8000	2/13	34	11.9	0.0	3.0
Canyon Creek	10R7-M	7500	2/13	35	12.8	0.9	3.1**
Canyon Point	10R9	7600	2/13	37	13.4	1.1	---
Coronado Trail	9S7	8000	2/15	29	9.9	0.0	2.7
Forest Dale	10R6	6430	2/14	12	4.0	0.0	1.3
Ft. Apache	9R5	9160	2/14	39	11.6	2.8	8.1**
Hannagan Meadows	9S11	9090	2/13	52	16.0	2.1	---
Hawley Lake	9R10	8300	2/14	46	12.1	0.6	---
Heber	10R4	7600	2/13	36	13.3	1.0	3.6**
Maverick Fork	9S2	9050	2/14	52	15.0	2.2	9.3**
McNary	9R2-M	7200	2/14	29	9.2	0.0	2.4
Milk Ranch	9R1	7000	2/14	20	6.4	0.0	1.7
Mt. Ord (A)	9S12-A	11000	2/18	88	31.5	8.0	---
Nutrioso *	9S4	8500	2/15	22	7.8	0.0	2.0
Pacheta	9S5	7800	DISCONTINUED			0.0	3.4**
Smith Cienega (A)	9S14-A	9850	---	---	---	6.0	---
Wilson Lake	9R6	9000	2/14	48	14.1	4.8	---
Workman Creek	10S1	6900	2/14	46	18.8	0.9	4.6**

BILL WILLIAMS RIVER

Camp Wood *	12R1	5700	2/15	4	1.8	0.0	0.9
Copper Basin Divide	12R6	6720	2/14	26	9.2	0.0	---
Iron Springs	12R2	6200	2/14	8	3.0	0.0	1.3
Willow Ranch	13P1	5000	2/15	0	0.0	0.0	0.4

(a) 1948-62, 15 year period. (*) Adjacent drainage. (**) 1948-62 Adjusted Average. (A) Aerial observation: Water content estimated.



SNOW ABOUT FEBRUARY 15, 1968

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^a

VERDE RIVER

Baker Butte	11R6	7300	2/13	46	18.8	0.9	---
Camp Wood	12R1	5700	2/15	4	1.8	0.0	0.9
Chalender	12P1-M	7100	2/14	20	7.4	1.0	3.4
Copper Basin Divide	12R6	6720	2/14	26	9.2	0.0	---
Fort Valley	11P2	7350	2/14	21	5.8	0.0	2.7
Gaddes Canyon	12R4	7600	2/14	46	15.4	0.3	5.0**
Happy Jack	11R5	7630	2/14	38	11.6	0.0	4.1**
Iron Springs *	12R2	6200	2/14	8	3.0	0.0	1.3
Mingus Mountain	12R3	7100	2/14	20	6.4	0.0	1.3
Mormon Lake *	11R4	7350	2/13	31	11.8	1.3	4.8
Mormon Mountain	11R3-M	7500	2/13	35	13.1	0.7	6.5**
Munds Park	11R1-M	6500	2/12	16	6.6	0.0	2.3**
Newman Park	11P5-M	6750	2/12	18	7.1	0.0	---
Snow Bowl #1	11P4	10260	2/15	40	11.7	7.1	---
Snow Bowl #2	11P6	11000	2/15	62	19.8	13.3	---
White Spar	12R5	6000	2/14	10	3.0	0.0	---
White Horse Lake Jct.	12P2	7150	2/13	27	8.8	0.4	---

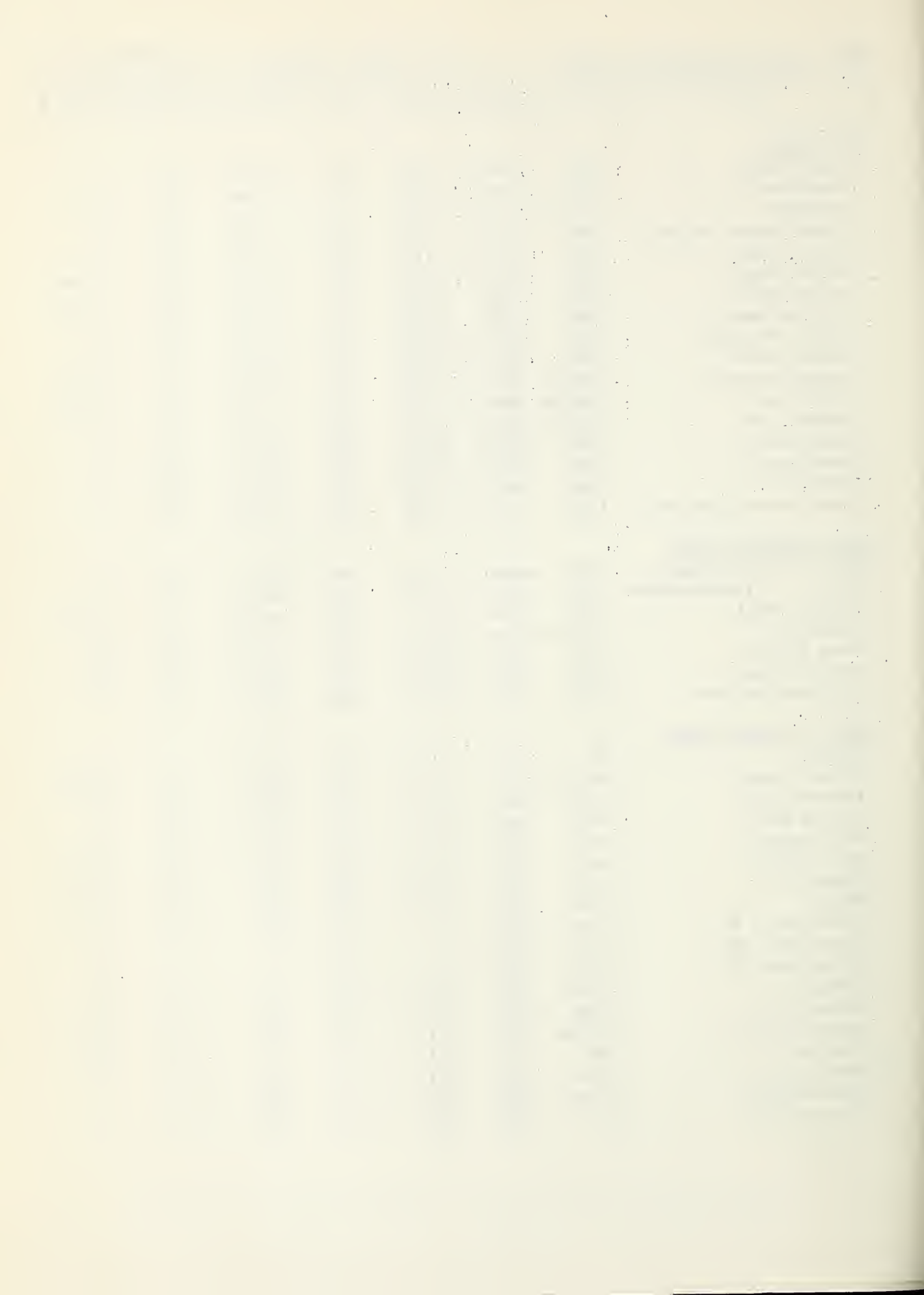
LOWER COLORADO RIVER

Bill Williams Summit	12P4	8950	2/13	44	14.0	7.1	---
Bill " Intermediate	12P5	8550	2/13	42	14.5	4.0	---
Bright Angel	12N1	8400	2/6	31	10.3	---	7.8**
Chalender *	12P1-M	7100	2/14	20	7.4	1.0	3.4
Fort Valley	11P2	7350	2/14	21	5.8	0.0	2.7
Grand Canyon	11P1	7500	2/14	18	4.4	0.1	2.5
Williams Ski Run	12P3	7720	2/13	38	13.5	2.3	---

LITTLE COLORADO RIVER

Baldy	9S1	9125	2/14	41	11.8	1.7	7.7**
Canyon Creek	10R7-M	7500	2/13	35	12.8	0.9	3.1**
Canyon Point	10R9	7600	2/13	37	13.4	1.1	---
Forest Dale	10R6	6430	2/14	12	4.0	0.0	1.3
Ft. Apache	9R5	9160	2/14	39	11.6	2.8	8.1**
Fort Valley	11P2	7350	2/14	21	5.8	0.0	2.7
Happy Jack *	11R5	7630	2/14	38	11.6	0.0	4.1**
Heber	10R4	7600	2/13	36	13.3	1.0	3.6**
Inner Basin #1	11P9	10100	---	---	---	---	---
Inner Basin #2	11P8	9750	---	---	---	---	---
Inner Basin #3	11P7	10250	---	---	---	---	---
McNary	9R2-M	7200	2/14	29	9.2	0.0	2.4
Mormon Lake	11R4	7350	2/13	31	11.8	1.3	4.8
Mormon Mountain	11R3-M	7500	2/13	35	13.1	0.7	6.5**
Nutriosio	9S4	8500	2/15	22	7.8	0.0	2.0
Snow Bowl #1	11P4	10260	2/15	40	11.7	7.1	---
Snow Bowl #2	11P6	11000	2/15	62	19.8	13.3	---
Wilson Lake *	9R6	9000	2/14	48	14.1	4.8	---

(a) 1948-62, 15 year period. (*) Adjacent drainage. (**) 1948-62 Adjusted Average. (A) Aerial observation: Water content estimated.



PRECIPITATION AT SELECTED ARIZONA STATIONS ^{1/}

STATION	Precipitation (Inches)			
	January - 1968		Current Water-Year (Oct.1967 - Jan.1968)	
	Total	Departure from Average	Total	Departure from Average
Alpine	.85	- .75	9.34	+ 3.94
Ash Fork	.52	- .50	4.52	+ .90
Clifton	.70	- .21	5.90	+ 2.53
Douglas Smelter	.52	- .20	5.84	+ 3.35
Flagstaff WBAS*	1.55	- .28	9.69	+ 3.69
McNary	2.16	- .30	14.82	+ 6.72
Payson Ranger Station	1.93	- .19	13.54	+ 6.67
Phoenix WBAS	.19	- .54	6.11	+ 3.58
Prescott	2.34	+ 1.33	9.80	+ 6.56
Tucson WBAS	.18	- .64	5.13	+ 2.13
Winslow WBAS	T	- .43	4.20	+ 2.23
Yuma WBAS	T	- .39	2.10	+ .89

^{1/} Data and Analysis furnished by Paul C. Kangieser,
Arizona State Climatologist, U.S. Weather Bureau,
ESSA, Tempe.

* WBAS = Weather Bureau Airport Station



PRECIPITATION

STORAGE GAGE DATA - ABOUT FEBRUARY 15, 1968

Drainage Basin and Storage Gage	Elev.	Current Data		1948-62	From Approx. 11/1 to Date		
		Date of Reading	Feb. 1-15 Precip.	Av. Precip. Feb. 1-15	This Year	1948-62 Average	% of Average
<u>GILA RIVER</u>							
Silver Creek Divide	9000	2/15	1.55	---	21.17	---	---
Hannagan Meadows	9030	2/13	.51	1.01*	14.21	9.52*	149%
<u>SALT RIVER</u>							
Canyon Point	7600	2/13	1.50	---	19.12	---	---
Hannagan Meadows	9030	2/13	.51	1.01*	14.21	9.52*	149%
Little Wildcat (Heber Snow Course)	7600	2/13	1.48	1.38*	18.72	9.60*	195%
Maverick Fork	9050	2/14	1.20	1.17*	14.64	8.04*	182%
Workman Creek **	6970	2/14	3.40	1.42	22.27	12.12	184%
Wilson Lake	9100	2/14	.88	---	15.28	---	---
<u>VERDE RIVER</u>							
Baker Butte	7300	2/13	1.52	---	20.93	---	---
Copper Basin Divide	6720	2/14	1.44	---	15.45	---	---
Fort Valley **	7350	2/14	.74	.93	10.35	6.23	166%
Happy Jack **	7480	2/14	2.40	1.03*	15.18	8.13*	187%
Mingus Mountain	7660	2/14	2.10	1.06	18.05	6.95	260%
Mormon Mountain	7500	2/12	.83	---	15.68	---	---
<u>LITTLE COLORADO</u>							
Inner Basin #1	9830	---	---	---	---	---	---
Inner Basin #2	10050	---	---	---	---	---	---
Sheep Crossing (Baldy Snow Course)	9125	2/14	.60	1.06*	12.46	7.29*	171%
Little Wildcat (Heber Snow Course)	7600	2/13	1.48	1.38*	18.72	9.60*	195%

* 1948-62 Adjusted Average

** Data supplied by U.S. Forest Service

ARIZONA SOIL MOISTURE - ABOUT FEBRUARY 15, 1968

Drainage Basin and Station	<u>1/</u> Station Number	Elev.	Soil Profile in Inches		Soil Moisture Content in Inches				
			Depth	Cap.	Date	1968	1967	1966	Avg.
<u>GILA RIVER</u>									
Frisco Divide	8S1-M	8000	48	13.3	2/14	8.1	9.5	10.5	11.2
<u>SALT RIVER</u>									
Black River Divide	9S10-*	9100	48	16.8	2/14	17.2	17.3	18.1	14.7
Canyon Creek	10R7-M	7500	48	18.3	2/13	17.6	18.7	18.3	14.3
Corduoy Creek	10R8-*	6000	36	13.5	2/14	14.5	9.1	12.8	7.8
McNary	9R2-M	7200	48	16.3	2/14	13.7	14.6	17.9	13.5
<u>VERDE RIVER</u>									
Mormon Mountain	11R3-M	7500	48	16.1	2/12	13.7	17.4	17.7	14.7
Newman Park	11P5-M	6750	48	17.7	2/12	19.6	18.1	19.5	14.2

1/ * - Soil Moisture Station Only

M - Snow Course and Soil Moisture Station

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SNOW COURSE

Baker Butte -----
Baldy -----
Bear Wallow -----
Beaver Head -----
Bill Williams Intermediate -----
Bill Williams Summit -----
Bright Angel -----
Camp Wood -----
Canyon Creek -----
Canyon Point -----
Chalender -----
Copper Basin Divide -----
Coronado Trail -----
Crazy Horse -----
Emory Pass -----
Forest Dale -----
Ft. Apache -----
Fort Valley -----
Frisco Divide -----
Gaddes Canyon -----
Grand Canyon -----
Hannagan Meadows -----
Happy Jack -----
Hawley Lake -----
Heber -----
High Peak -----
Hummingbird -----
Ice King -----
Inman -----
Inner Basin #1, #2, #3 -----
Iron Springs -----
Maverick Fork -----
McKnight Cabin -----
McNary -----
Milk Ranch -----
Mingus Mountain -----
Mogollon -----
Mormon Lake -----
Mormon Mountain -----
Mt. Ord -----
Munds Park -----
Newman Park -----
Nutrioso -----
Redstone Trail -----
Rose Canyon -----
Silver Creek Divide -----
Smith Cienega -----
Snow Bowl #1 -----
Snow Bowl #2 -----
State Line -----
White Horse Lake Junction -----
White Spar -----
Whitewater -----
Williams Ski Run -----
Willow Ranch -----
Wilson Lake -----
Workman Creek -----

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N. A. Josh
Forest Service - Chuck Sheirer
Forest Service - Chuck Sheirer
National Park Service - Bob Peterson
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Forest Service - Art Maynard
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Rocky Mountain Forest & Range Exp. Station

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Soil Conservation Service

Forest Service

Apoche Forest

Coconino Forest

Coronado Forest

Gila Forest

Koibob Forest

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Rocky Mountain Forest and Range Experiment Station

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Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

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